# URBAN AREA CONGESTION RELIEF ANALYSIS CONCEPTUAL STRUCTURE, SCHEDULE, PROCESS, AND FINAL PRODUCT

## **BRIEFING PAPER**

Prepared for the September 2003 TRANSPORTATION COMMISSION MEETING

Prepared by: Michael Cummings & Shuming Yan, Urban Planning Branch Reviewed by: Charlie Howard, Director, Strategic Planning & Programming Approved by: Paula J. Hammond, Chief of Staff

### **PURPOSE:**

The goal of this effort is to fulfill the analytical requirements of ESHB 1163 Sec. 222(3), ESHB 2304 Sec. 404 (1) and (2), as well as meeting the intent of SB 5987 Sec.14 to:

- 1. Identify travel demand for the Puget Sound, Spokane, and Vancouver metropolitan areas consistent with planned growth under the Growth Management Act;
- 2. Identify and evaluate potential multimodal solutions to meet the identified travel demand; and
- 3. Develop a performance report analyzing cost, impact and benefits of various levels of congestion relief strategies.
- 4. This is not a plan development. It is not intended to make improvement recommendations (which is the role of WTP update to begin soon). Rather, the analysis will focus on answering questions such as what does it take (in terms of cost and impact) to achieve a particular level/s of congestion relief?

### **ACTION/OUTCOME:**

This is a discussion item. No action is requested.

### **BACKGROUND:**

The 2003 state legislature directed WSDOT to conduct a study of regional congestion relief solutions for Puget Sound, Spokane, and Vancouver. It requires that "The study must include proposals to alleviate congestion consistent with population and land use expectations under the growth management act, and must include measurement of all modes of transportation" (ESHB 1163 Sec. 222(3)). It is evident that the analysis needs to be based on the GMA plans of the three metropolitan regions and that TDM, transit and roadway improvements should all be considered in the analysis.

#### **DISCUSSION:**

The draft approach and structure of the study is described below.

## Structure

- WSDOT will lead and staff the project with support from the three MPOs, transit agencies and consultants.
- The Puget Sound Regional Council, Spokane Regional Transportation Council, and the Regional Transportation Council in Vancouver will serve as a sounding board for input and feedback. An expert review panel consisting of well-known transportation experts in the state will be assembled to review and critique the methodology and results of the analysis.
- The Transportation Commission and the MPOs' Transportation Policy Boards will be briefed at major study milestones.
- Since this is primarily a data-driven technical exercise, no major public involvement is envisioned throughout the process except for engaging a limited number of transportation groups.

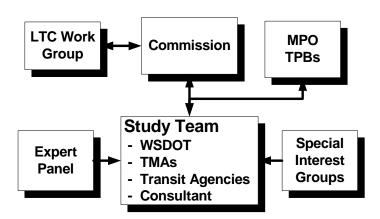


Figure 1. Analysis Structure

# Scope/Process/Methodology:

The study will incorporate a series of technical analyses including the review of the three regional GMA plans, assessment of system performances of existing, future no-action and various future action scenarios. The bulk of workload will be to develop and analyze corridor action alternatives that address access to, from and through designated land use activity centers.

The alternatives to be analyzed will include two bookend options with emphasis on different modes and some combinations that include varying levels of transit service and highway improvements in specific corridors. The components of various alternatives components will be defined/designed in sufficient detail to support an initial assessment

of costs and impacts. The congestion relief benefits of these alternatives will be modeled and quantified.

The draft study scope/process/methodology is depicted in a chart on the next page.

Commission briefing: general approach **Establish System Performance Measures & Evaluation Criteria** Level of Congestion: Travel time Cost of delay **Existing Conditions** Mode splits, etc. 2020 Planned Growth Level of Congestion: Travel time Cost of delay 2020 No Action Model Run Mode splits, etc. Regional Travel Patterns: Trips to employment centers Trips between urban centers Commission & TPB briefing Mode split potentials **Unconstrained Model Run** Alternatives Development & Analysis Two bookends with different modes emphases and some mid-grounds with varying levels of transit services and highway improvements by corridors will be developed and analyzed. Commission & TPB: extent of mid-alternative **Alternatives Conceptual Design** & Cost Estimates Example of measures: - cost per added person served for each mode/alt. - cost per hour of travel time **Performance Modeling** saved for each mode/alt. & B/C Analysis - demand met and left unmet for each mode/alt. **Report & Presentation Production** Commission & TPB final presentation

Figure 2. Analysis Process

### Schedule:

The analysis is scheduled for completion in July of 2004. This completion date fits well with a number of other major regional planning efforts shown below: they include the RTID preparation work for the September or November ballot; Sound Transit Phase 2 planning that is expected to be completed in fall 2004; the WTP update to be started in fall of this year; and several other "mega" projects that are currently underway. The chart below summarizes these efforts and timelines:



Figure 3. Regional Planning and Major Projects Activities

## Click on chart to view a larger and more legible version

A detailed schedule will be developed once the scope of work is finalized. The first phase of this work is to define the scope of work and a detailed approach. This phase is expected to last about two months. It includes the following key activities:

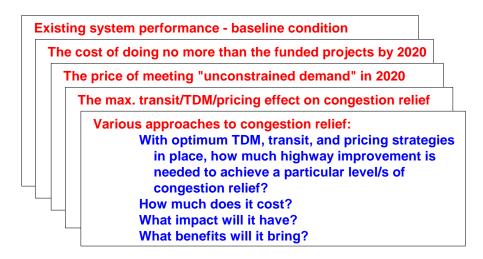
- 1. An Expert Review Panel consisting of well-known transportation experts in the state will be assembled. The panel will be called upon at appropriate times during the analysis to review and critique methodologies and draft results. The first panel meeting is scheduled for August 7 to help define the scope, methodologies and final product. (Done.)
- 2. The results of the first panel meeting will be shared and refined at a Congestion Relief Work Group meeting (consists staffs from WSDOT Regions, the three MPOs and Transit agencies) in early September.
- 3. The refined scope, methodology and desired outcome will be reported to DOT leadership in early September for approval.
- 4. After approval by DOT leadership, the scope, methodology and desired outcome will be reported to the Commission for endorsement on September 16.

# **Desired Outcome/Product:**

It is envisioned that the final product will include the following three documentations:

- A summary of the background information that includes legislative requirements and the three GMA plans, etc.;
- A technical document with the assumptions, methodologies and analysis results; and
- A summary report that documents the major findings and conclusions. A presentation will be developed to present to the TPBs, Commission, LTC and interested groups. The summary report will include the elements shown on Figure 3 below:

Figure 4. Analysis Product/Documentation



#### **RECOMMENDATION:**

This is a discussion item. We will come back to brief the Commission at major study milestones throughout this process.

For further information, contact: Shuming Yan, Technical Services Manager, Urban Planning Office, 206-464-1276.